Southern Nuclear

Jamie M. Coleman
Regulatory Affairs Director
Vogtle 3 & 4

7825 River Road
Waynesboro, GA 30830
706-848-6926 tel

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Southern Nuclear Operating Company
Vogtle Electric Generating Plant Unit 4
ITAAC Closure Notification on Completion of ITAAC 2.3.01.03.ii [Index Number 281]

Ladies and Gentlemen:

In accordance with 10 CFR 52.99(c)(1), the purpose of this letter is to notify the Nuclear Regulatory Commission (NRC) of the completion of Vogtle Electric Generating Plant (VEGP) Unit 4 Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC) Item 2.3.01.03.ii [Index Number 281], for verifying the following:

- The Component Cooling Water System (CCS) provides the nonsafety-related functions of transferring heat from the Normal Residual Heat Removal System (RNS) during shutdown and the Spent Fuel Pool Cooling System (SFS) during all modes of operation to the Service Water System (SWS).
- Controls exist in the Main Control Room (MCR) to cause the pumps identified in Table 2.3.1-1 to perform the listed function.
- Displays of parameters identified in Table 2.3.1-1 can be retrieved in the MCR.

The closure process for this ITAAC is based on the guidance described in NEI 08-01, “Industry Guideline for the ITAAC Closure Process under 10 CFR Part 52”, which is endorsed by the NRC in Regulatory Guide 1.215.

This letter contains no new NRC regulatory commitments. Southern Nuclear Operating Company (SNC) requests NRC staff confirmation of this determination and publication of the required notice in the Federal Register per 10 CFR 52.99.

If there are any questions, please contact Kelli Roberts at 706-848-6991.

Respectfully submitted,

Jamie Coleman

Jamie M. Coleman
Regulatory Affairs Director Vogtle 3 & 4

Enclosure: Vogtle Electric Generating Plant (VEGP) Unit 4
Completion of ITAAC 2.3.01.03.ii [Index Number 281]

JMC/TL/sfr

cc: Regional Administrator, Region ll
Director, Office of Nuclear Reactor Regulation (NRR)
Director, Vogtle Project Office NRR
Senior Resident Inspector – Vogtle 3 & 4

Southern Nuclear Operating Company
ND-23-0391
Enclosure

Vogtle Electric Generating Plant (VEGP) Unit 4
Completion of ITAAC 2.3.01.03.ii [Index Number 281]

ITAAC Statement

Design Commitment

3. The CCS provides the nonsafety-related functions of transferring heat from the RNS during shutdown and the spent fuel pool cooling system during all modes of operation to the SWS.

4. Controls exist in the MCR to cause the pumps identified in Table 2.3.1-1 to perform the listed functions.

5. Displays of the parameters identified in Table 2.3.1-1 can be retrieved in the MCR.

Inspections/Tests/Analyses

ii) Testing will be performed to confirm that the CCS can provide cooling water to the RNS HXs while providing cooling water to the SFS HXs.

Testing will be performed to actuate the pumps identified in Table 2.3.1-1 using controls in the MCR.

Inspection will be performed for retrievability of the parameters in the MCR.

Acceptance Criteria

ii) Each pump of the CCS can provide at least 2685 gpm of cooling water to one RNS HX and at least 1200 gpm of cooling water to one SFS HX while providing at least 4415 gpm to other users of cooling water.

Controls in the MCR operate to cause pumps listed in Table 2.3.1-1 to perform the listed functions.

Displays identified in Table 2.3.1-1 can be retrieved in the MCR.

ITAAC Determination Basis

Multiple ITAAC are performed to demonstrate that the Component Cooling Water System (CCS) provides the nonsafety-related functions of transferring heat from the Normal Residual Heat Removal System (RNS) during shutdown and the Spent Fuel Pool Cooling System (SFS) during all modes of operation to the Service Water System (SWS), that controls exist in the Main Control Room (MCR) to cause the pumps identified in VEGP Combined License (COL) Appendix C Table 2.3.1-1 to perform the listed function, and displays of the parameters identified in COL Appendix C Table 2.3.1-1 can be retrieved in the Main Control Room (MCR).

This ITAAC requires testing and inspections to be performed to confirm that the CCS can provide cooling water to the RNS Heat Exchangers (HXs) while providing cooling water to the SFS HXs, that controls in the MCR operate to actuate the pumps in COL Appendix C Table 2.3.1-1, and displays listed in COL Attachment C Table 2.3.1-1 can be retrieved in the MCR.

ii) Each pump of the CCS can provide at least 2685 gpm of cooling water to one RNS HX and at least 1200 gpm of cooling water to one SFS HX while providing at least 4415 gpm to other users of cooling water.

Testing was performed in accordance with preoperational test identified in Reference 1 to verify that each CCS pump can provide at least 2685 gpm (gallons per minute) of cooling water to one RNS HX and at least 1200 gpm of cooling water to one SFS HX while providing at least 4415 gpm to other users of cooling water.

The test was conducted by running each CCS pump, individually, to supply one RNS HX, one SFS HX and other users of CCS in the Auxiliary, Containment, and Turbine Buildings. CCS pump A was place into service and when steady flow was established to SFS HX A, RNS HX A, and other users of cooling water, flow was measured using a combination of permanently installed and temporarily installed flow instrumentation. The flow values were recorded and verified to meet the acceptance criteria. This testing was repeated using CCS Pump B with the SFS HX B, RNS HX B and the other users of CCS in service. The results of the testing were documented in ITAAC Technical Report SV4-CCS-ITR-800281 (Reference 1). The component flows measured during testing are summarized in Attachment A.

The completed preoperational test confirmed that each CCS pump for Unit 4 provides at least 2685 gpm of cooling water to one RNS HX and at least 1200 gpm of cooling water to one SFS HX while providing at least 4415 gpm to other users of cooling water and provided evidence that the ITAAC Acceptance Criteria were met.

Controls in the MCR operate to cause pumps listed in Table 2.3.1-1 to perform the listed functions.

Testing was performed to verify controls in the MCR cause pumps identified in COL Appendix C Table 2.3.1-1 (Attachment B) to perform the listed functions.

Testing was performed by ensuring CCS B Train was filled and vented and then CCS Pump B was started per the operating procedure in the MCR. The test then ensured the CCS A Train was filled and vented and then CCC Pump A was started per the operating procedure in the MCR. Both pump starts were verified locally and documented in ITAAC Technical Report SV4-CCS-ITR-801281 (Reference 2).

This confirmed that controls in the MCR cause pumps identified in Table 2.3.1-1 to perform the listed functions.

Displays identified in Table 2.3.1-1 can be retrieved in the MCR.

An inspection was performed to confirm that displays identified in COL Appendix C Table 2.3.1-1 (Attachment C) can be retrieved in the MCR.

The inspection visually confirmed that when each of the displays of parameters identified in Attachment C was summoned at a MCR workstation, the summoned plant parameters appeared on a display monitor at that MCR workstation. This was documented in ITAAC Technical Report SV4-CCS-ITR-801281 (Reference 2).

The inspection results confirmed that the displays identified in Table 2.3.1-1 could be retrieved in the Unit 4 MCR and provided evidence that the ITAAC Acceptance Criteria were met.

References 1 and 2 are available for NRC inspection as well as Unit 4 ITAAC Completion Package (Reference 3).

ITAAC Finding Review

In accordance with plant procedures for ITAAC completion, Southern Nuclear Operating Company (SNC) performed a review of all findings pertaining to the subject ITAAC and associated corrective actions. This review found there are no relevant ITAAC findings associated with this ITAAC. The ITAAC completion review is documented in the ITAAC Completion Package for ITAAC 2.3.01.03.ii (Reference 3) and is available for NRC review.

ITAAC Completion Statement

Based on the above information, SNC hereby notifies the NRC that ITAAC 2.3.01.03.ii was performed for VEGP Unit 4 and that the prescribed acceptance criteria were met.

Systems, structures, and components verified as part of this ITAAC are being maintained in their as-designed, ITAAC compliant condition in accordance with approved plant programs and procedures.

References (available for NRC inspection)

1. SV4-CCS-ITR-800281, Rev. 0, “Unit 4 Recorded Results of CCS Pump Flow Through RNS HX, SFS HX, & Other Users of CCS Cooling: ITAAC 2.3.01.03.ii Item 3.ii”
2. SV4-CCS-ITR-801281, Rev. 0, “Unit 4 Recorded Results of CCS Controls and Displays in MCR associated with Table 2.3.1-1: ITAAC 2.3.01.03.ii Items 4 and 5”
3. 2.3.01.03.ii-U4-CP-Rev0, ITAAC Completion Package

Attachment A

CCS Component Flow Values

CCS Pump	RNS HX Flow (gpm)	SFS HX Flow (gpm)	Other System Flows (gpm)
Unit 4 A	HX A – 3071	HX A – 1270	Train A HXs – 6785
Unit 4 B	HX B – 3029	HX B – 1308	Train B HXs – 6894

Attachment B

*Excerpt from COL Appendix C Table 2.3.1-1

Equipment Name*	Tag No.*	Control Function*
CCS Pump A	CCS-MP-01A	Start
CCS Pump B	CCS-MP-01B	Start

Attachment C

*Excerpt from COL Appendix C Table 2.3.1-1

Equipment Name*	Tag No.*	Display*
CCS Pump A	CCS-MP-01A	Yes (Run Status)
CCS Pump B	CCS-MP-01B	Yes (Run Status)
CCS Discharge Header Flow Sensor	CCS-101	Yes
CCS to Normal Residual Heat Removal System Heat Exchanger (RNS HX) A Flow Sensor	CCS-301	Yes
CCS to RNS HX B Flow Sensor	CCS-302	Yes
CCS to Spent Fuel Pool Cooling System (SFS) HX A Flow Sensor	CCS-341	Yes
CCS to SFS HX B Flow Sensor	CCS-342	Yes
CCS Surge Tank Level Sensor A	CCS-130	Yes
CCS Surge Tank Level Sensor B	CCS-131	Yes
CCS Heat Exchanger Inlet Temperature Sensor	CCS-121	Yes
CCS Heat Exchanger Outlet Temperature Sensor	CCS-122	Yes
CCS Flow to Reactor Coolant Pump (RCP) 1A Valve (Position Indicator)	CCS-PL-V256A	Yes
CCS Flow to RCP 1B Valve (Position Indicator)	CCS-PL-V256B	Yes
CCS Flow to RCP 2A Valve (Position Indicator)	CCS-PL-V256C	Yes
CCS Flow to RCP 2B Valve (Position Indicator)	CCS-PL-V256D	Yes